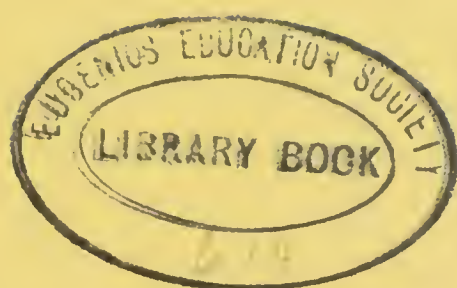


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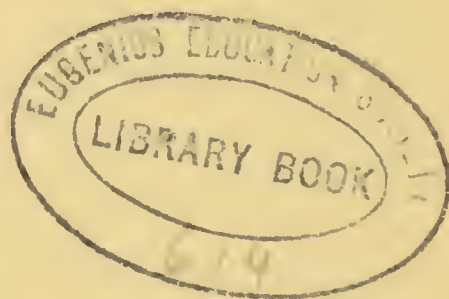
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For Gott
with kind regards
of mother

McDonnell, W. M. M. O.

A PRACTICABLE EUGENIC
SUGGESTION



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A PRACTICABLE EUGENIC SUGGESTION.

By W. McDougall, M.A., M.B.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on February 21st, 1906, Dr. F. W. Mott, F.R.S., in the Chair.

It may be assumed that the term Eugenics, as introduced and used by Mr. Francis Galton, is familiar to all members of this Society. I may also assume that we should all agree in wishing to promote any measure, any change of custom or institution, which could be clearly shewn to be eugenic in tendency and to involve no injustice, no interference with personal liberty, and no risks of weakening or destroying any of the pillars of our social system. The suggestion I wish to put before you is the desirability of a change of custom which would fulfil those conditions. And the bearing of my remarks may be clearer if I at once define this proposed change of custom.

First, let me remind you of a fact, of the first importance in this connection, which the layman is apt to ignore or forget. It is that, in the opinion of almost all who have made a thorough study of the facts of heredity, acquired characters are not in any degree transmitted from parent to offspring; that is to say, they believe that no improvement of the mental, moral or physical capacities of individuals due to training, favourable environment or efforts after self-

improvement can in any degree be transmitted to their offspring. This opinion of the biologists is most discouraging to all who are concerned for the progress and future welfare of mankind, but it is so well founded that we are not justified in relying upon education and improvement of the conditions of life for the improvement of the innate constitution of the population of this or any country, or even for the prevention of its deterioration.

It follows from this conclusion, that, apart from immigration and emigration, the innate constitution of any population can only be affected for good or ill by influences that affect the rates of reproduction of the different classes and elements of the population. Such influences may with advantage be roughly classified in four groups according as they affect the rate of reproduction of (1) the worst elements of the population, all those grossly and innately deficient in intellectual, moral or physical qualities; (2) all, or a large proportion of the individuals, below the average of civic worth*; (3) all, or a large proportion of the individuals, of more than average civic worth; (4) the finest individuals, those of the highest civic worth. Influences of each of these four groups we may call *positive* or *negative* according as they *favour* or tend to *diminish* the rate of reproduction of individuals of these classes. All eugenic influences are thus negative influences of the first or second class, or positive influences of the third or fourth class.

From the time that Darwin's doctrine of evolution through natural selection became generally and almost suddenly accepted, there have not been wanting advocates of negative measures of the first class, measures for eliminating the worst elements of the population. Sequestration, sterilisation, the guillotine, infanticide, strict prohibition of marriage, these and other drastic measures have had their ardent advocates, while positive eugenic suggestions have been generally

* I use Mr. Galton's convenient phrase "civic worth" to denote the combination of intellectual, moral and physical qualities with which any individual is innately endowed. In this combination, deficiency in one or two of these respects may of course be compensated for by excellence in regard to the other quality or qualities.

received with indifference, or with ridicule and "cold water" of every kind. And in spite of the teaching of Plato, of Mr. Galton and of Professor Karl Pearson, this continues to be the case. This state of affairs implies the prevalence of a false estimate of the relative importance of the negative and positive eugenic influences, a false estimate which arises from an imperfect comprehension of the principles of heredity and evolution, an ignorance of the principal conditions of social welfare and progress, and a blindness to the state of affairs obtaining in this country at the present time. For I believe it can be proved beyond question, not only that negative measures of the first kind, measures for eliminating the unfit, are difficult to apply without actual injustice and risk of defeating the end sought after,* but that they would be, if successfully applied, of insignificant importance, relatively to the influence of the third and fourth groups; those which affect the reproduction of the better elements, and especially those of the fourth group. I believe that the relative importance of these four groups of influences is very different, and that it is in the inverse order of their statement above, *i.e.*, elimination of the grossly unfit is the least important, increase of rate of reproduction of the most fit is the first in importance. My suggestion is based on this opinion, which I shall shortly attempt to justify. But first let me state the nature of the suggestion.

There are in this country certain large classes of persons selected from among the whole population by tests which ensure that in the main these persons have a civic worth above the average. My suggestion is that we should endeavour to introduce the custom of remunerating the services of every person belonging to any such selected class, not, as

* *E.g.*, It is held by Mr. Edward Carpenter and others that criminals are not in the main degenerate persons whom we should seek to eliminate from the population, but that they are rather persons to be regarded as of original minds who are incapacitated by their unlikeness to the average mental type for life under the system of laws and conventions which has been evolved by and in conformity with the predominant mental type. It is clear that, if there be any truth in this view, to sterilise in any way our criminal stocks would be to eliminate our most variable stocks, and since variability is the prime condition of all evolution, the most variable stocks of any population must be regarded as of the highest value.

at present, according to some rigid scale, but according to a sliding scale such that his income shall be larger in proportion to the number of his living offspring.

The agencies by which these persons are selected are constantly becoming more efficient and more wide-reaching, but they probably operate in the main as agencies of degradation of the population, through making against the rate of reproduction of the individuals selected by them. A change of custom of the kind suggested would convert them to effective eugenic agencies favouring very greatly the reproduction of the selected classes, classes which comprise a large proportion of all the individuals of more than average civic worth. But the main contention of this paper is that the suggested change of custom may be expected to favour very greatly the reproduction of the individuals and classes of *highest civic worth*, and that if it should have this effect it would be a eugenic influence of vastly greater importance than the negative measures so commonly advocated.

This contention is based upon the three following propositions :—(1) That some men are of very much greater civic worth than the average, and that the continued strength, prosperity, and progress of this or any nation depends upon the continuance of a good supply of these persons of high civic worth ; (2) that mental and moral qualities are hereditary in much the same sense and degree as physical characters ; that, therefore, the superior elements of the population in each generation, and especially the persons of highest civic worth on whom the continued welfare of the nation is mainly dependent, will be found in far larger proportions among the progeny of the superior individuals of the preceding generations than among the progeny of the mass of persons of average qualities ; (3) that in this country at the present time, the fertility of the superior classes, or, better, of the individuals of higher civic worth, is low relatively to that of the mediocre mass of the population, and still lower relatively to their maximal natural fertility, and that this relative infertility is mainly due to artificial and removable causes.

I believe that these three propositions cannot seriously be disputed. Nevertheless, it is perhaps worth while to say something in support of them; and in the brief time at my disposal, the most effective way of doing this is perhaps to quote the opinions and conclusions of the highest authorities. Mr. W. H. Mallock, in his book "Aristocracy and Evolution," has brilliantly exposed the fallacies and inconsistencies of those who, like Herbert Spencer, profess to reject the "great man theory" of social evolution, and has displayed in a convincing manner the social importance of the exceptionally gifted individuals. A great number of eminent thinkers, among whom are Comte, Carlyle, Mill, Buckle, Bagehot, and Mr. Francis Galton (to name only a few), have concurred in maintaining that the progress of civilisation has mainly resulted from the ideas given to the world by exceptionally gifted men—that, as Mr. Mallock has it, "the human race progresses because and when the strongest human powers and the highest human faculties lead it; such powers and faculties are embodied in and monopolised by a minority of exceptional men; these men enable the majority to progress." They maintain, in short, that the mark, the essence and the cause of the progress of mankind, is, in the words of Mill, the successful exercise of "the speculative faculties;" or, as we may say in the case of any one nation, the state of its living knowledge.*

Following Mr. Galton, we may call *illustrious* the great men who give to the world ideas of supreme importance. Now, while it is true that the progress of mankind in general is in very large part due to the activities

* The most direct evidence in support of this proposition is afforded by the extensive observations of the distinguished French psychologist, M. Gustave le Bon, upon the skull-capacities of the different races of men. He has shewn that, while the average skull-capacity is approximately the same for some of the progressive and some of the unprogressive races of men, any large group of skulls derived from one of the higher progressive races is distinguished from any similar group derived from one of the lower and unprogressive races of mankind by the presence of a certain number of skulls of exceptionally great capacity. M. le Bon holds that these correspond in the main to the individuals of exceptionally great abilities, whose appearance from time to time among certain races has sufficed in his opinion to give them their progressive character and to raise them in the scale of civilisation far above all races which are incapable of producing such individuals. (cf. "Lois psychologiques de l'évolution des peuples," pp. 41 and 151). In a paper recently read

of these illustrious men, it must be admitted that for a space of years, probably for some generations even, a well-organised nation might continue to be vigorous and healthy and to hold a good place in the world, though it should fail to bring to maturity any man of illustrious powers. But this would be possible only if it continued to produce in considerable numbers personalities of what we may call the second order of capacity; men who, though they are not endowed like those others, like Newton or Wordsworth or Bentham or Darwin, with powers that enable them to set going new movements in the world of thought or action, are yet full of intellectual and moral energy of a high order; men of the order of ability that we may roughly define by imagining grouped together some fifty of the most capable and efficient members of the houses of parliament, and the corresponding fifty from each of the great public services and from each of the great professions and callings. Such a group would correspond to those whom Mr. Galton classes as eminent men; and of such eminent men, and of younger men whose capacities are such as to raise them to eminence in middle age, he reckons that this country can boast about two thousand at the present time. The sum of the services rendered to their country by these eminent men cannot be reckoned inferior to the services of the illustrious men, and indeed they should perhaps be reckoned of more importance; for the ideas created by the men of supreme powers are given to the whole world, or to all that part of the world that is capable of appreciating them, and so advantage but little in the international struggle the country that gives them birth. But in the absence in any country of a fair supply of the

before the Royal Society, Professor Karl Pearson concludes that there is no sufficient ground for believing in a correlation of high mental ability with large size of the skull. This conclusion is based on the fact that he finds no marked difference in the average size of the head in the case of a large number of honours and of poll men of the University of Cambridge. I venture to think that no observant man, who has had the advantage of being a member of a large college at Cambridge and of having a large acquaintance among all classes of undergraduates, will accept this conclusion. Such a man will know that the majority of honours men are placed in the third class in the tripos lists, and that a place in the third class is hardly beyond the reach of any fairly studious man of very mediocre abilities. He will know also that very many undergraduates of great abilities never present themselves at the honours examinations.

minds of the second order, the great gifts of the world's illustrious men must remain ineffective in that country; for it is they who mediate between these moving spirits and the great mass of mediocre men, interpreting and teaching to the latter the ideas originated by the former; and it is they who maintain by their thoughts and conduct the highest traditions of the national life. If we try to imagine all, or a considerable proportion, of the men of this second order simultaneously removed by death, we may realise something of their importance; for it is clear that in the course of a few years from that event the nation would be reduced to a state of moral, intellectual, æsthetic and social chaos. It may be laid down in general terms that, while on the one hand, the world's illustrious men are the source and cause of the progress of mankind in general, in all that is worthy of the name; on the other hand the continued prosperity, stability and vigour of any nation is chiefly dependent upon the production in sufficient numbers of men of the second order of capacity.

I shall presently draw attention to one or two striking illustrations of this truth. But, first, I will ask you to consider my second proposition, namely, that mental qualities are transmitted from parents to offspring in much the same sense and degree as physical characters; and that therefore the persons of eminent civic worth or capacities of each generation are produced chiefly by parents of civic worth decidedly above the average. It is unfortunate that for the apprehension of this truth there is needed a far from common power of grasping intellectually large and varied groups of facts; and the average man, when confronted with this proposition, at once points to undistinguished sons of great men and to great men born of obscure and humble parents, and considers that in so doing he confutes it. He might equally well confute the evidence for the transmission of bodily characters by pointing to instances of brown foals produced by grey mares, and of tall sons born to fathers of medium stature. But here again my best course is to quote the conclusions of the highest authorities. In a paper read before the Royal Society, Professor Karl Pearson summarises the results of

a recent statistical investigation of the mental faculties of a very large number of school children ; his main conclusion is "that the mental characters in man are inherited in precisely the same manner as the physical." But our greatest authority on all such questions is Mr. Galton, who for many years has devoted his great talents to the study of them. His conclusions received their most definite expression in the Huxley Memorial Lecture of 1901, entitled "The Possible Improvement of the Human Breed under the Existing Conditions of Law and Sentiment." Mr. Galton imagines the whole population of the United Kingdom divided according to their degrees of civic worth into a series of ten classes, the classes being so defined that the difference between the average civic worth of any two adjoining classes is equal to that between any other two, *i.e.*, the ten classes form a scale of civic worth rising by steps of equal value from the lowest to the highest. The two classes occupying the mid position in this scale together comprise one half the population, and in numbers, and probably in civic worth, correspond fairly well to Mr. Charles Booth's class of artisans earning from twenty-two to thirty shillings a week. The five classes of individuals of more than average civic worth, Mr. Galton denotes by the letters R, S, T, U, and V. These five comprise about half the whole population, and of them, the lowest, R, the class of persons just above the average, comprises about one quarter of the total population ; S comprises about one-sixth, while T, U, and V, the three highest classes, together comprise about one-tenth only of the whole.

Mr. Galton shews reason to believe that, if all these classes were equally prolific, the V, or highest, class, would be three times as rich in V-class offspring as the U class, $11\frac{1}{2}$ times as rich as the T class, 55 times as rich as the S class, and 143 times as rich as the R class ; so that in spite of the smallness of its numbers, class V would be *absolutely* many times as rich in V-class offspring as class R, together with all the five classes below the average ; and further, that the classes T, U, and V of any one generation, comprising together only about one-tenth of the whole population, might be

expected to produce four-fifths of all the V-class individuals of the succeeding generation.

If we carry the division one step further and split off from the V class a still higher class, W, the number of persons of this W class corresponds fairly with the rough estimate of the number of persons of eminent civic worth; and it may be supposed to consist of all such persons, as well as of the still more highly endowed and rare spirits whom we have called illustrious persons. The same considerations then apply to the parentage of the W class and shew that nearly all of them may be expected to come from classes T, U, V, and W, the classes well above the average in civic worth. It is obvious then, that if Mr. Galton's reasoning is approximately and even only very roughly correct, any cause tending to diminish the rate of reproduction of these classes, T, U, and V, and to a less extent, that of all the other classes above the average, namely R and S, any such cause must, in proportion as it is effective, seriously diminish the number of persons of eminent civic worth born to each generation.

Here it is necessary to point out that the argument does not assume that the classes of Mr. Galton's scale correspond strictly to any of the commonly recognised social grades. Our social grades are of course based largely on wealth or income; and as wealth is hereditary, it follows that many persons continue to enjoy a far higher social standing than is warranted by their civic worth and that the higher social grades are therefore very mixed, *i.e.*, contain large numbers of persons who in the scale of civic worth belong to the mediocre or to some lower class.

Nevertheless, it remains true that the higher social classes, especially perhaps the class which we roughly define as the upper middle-class, and which comprises most of the intellectual workers of the country—the members of the higher professions—is the product of a long-continued process of selection. For many generations, the ablest members of the working classes and lower middle-class have been able to emerge from their class and to establish themselves and their families in a higher social class; and conversely, though

perhaps to a less extent, the least capable members of the higher social classes have been falling back to lower social grades. And it may be claimed, I think, that we have now well-nigh perfected the social ladder. Free and compulsory education; abundant, perhaps too abundant, scholarships; the breaking down of all rigid social barriers; the general tendency to seek and promote capacity wherever it may be found, and even a certain sentimental tendency to exaggerate the merits of the man who shews a tendency to rise: all these together ensure that now, and in the future, ability, or rather civic worth, can find its opportunity and its appropriate social level; and they justify us in believing that it seldom remains hidden. This is true in spite of the fact that birth and wealth may, and often do, favour the success of able men born in the upper classes.

We may believe then that now and in the future the individuals whose innate capacities render them members of classes T, U, and V will be found occupying approximately such positions in society as their superior merits entitle them to claim. These persons constitute, as we have seen, about one-tenth of the population, and we may fairly regard them as an emerged tenth, a tenth emerged in the past or emerging now from the mediocre mass, through merit.*

My third proposition is that these upper classes, T, U, and V, which, if equally fertile with the remaining classes, would produce many more persons of eminent civic worth than all these remaining classes taken together, are at the present time relatively infertile, and that the principal causes of this infertility are artificial and removable.

These principal causes are two; namely, late marriage and voluntary restriction of the size of the family after marriage. The custom of late marriage tends to diminish

* Mr. Galton (in "Hereditary Genius") and Professor Karl Pearson have expressed similar opinions very decidedly. The latter writes "The upper middle classes are the result of a severe selection of capacity," and again "It is the realisation of these points, that not all but the bulk of the abler and more capable stocks have drifted into the upper middle classes, and that ability is inherited; which makes, in my opinion, the decreasing relative fertility of these classes a matter of the most serious national importance." ("National Life from the Standpoint of Science." Appendix on National Deterioration, p. 77.)

in two ways the rate of reproduction of any class among whom it obtains. If in two equally numerous classes an equal number of children is produced on the average by each pair of parents, but the one class marries on the average at the age of twenty-five years, while the other class postpones marriage to the age of thirty-five years, then the generations of the former class will succeed one another so much more rapidly than those of the latter class, that after a few generations the numbers of the former will far exceed those of the latter in spite of their equal fertility. But, secondly, the offspring of late marriages will, other things being the same, be less numerous on the average than the offspring of early marriages. That voluntary restriction of the number of offspring is peculiarly and increasingly common among the well-educated and intellectual classes will, I think, be generally admitted, although it is of course impossible to produce statistics bearing on this question and to separate the effects of voluntary from a possible natural infertility.*

These two influences, late marriage and restriction of the family, are at a maximum among just those members of the upper social strata who constitute our classes T, U, and V, the emerged tenth. For these persons are to be found chiefly leading the strenuous life in the higher intellectual professions, and especially in those callings to which access is gained only by success in intellectual competition. And the more ambitious a man is, the more he is engrossed in his work; and the more highly cultivated and naturally keen are his tastes and intellect, the more likely is he to remain a bachelor, or to marry late and to restrict the number of his children when married. On the other hand, many of the social changes which have been recently effected or are now going on in this country directly favour the reproduction of the inferior classes. Such are the low price of bread and sugar, the tendency to throw taxation chiefly on the well-to-do classes, enormous charities, free medical and surgical

* The fact that there is some ground for suspecting that the intellectual classes are naturally less fertile than the others, does but add to the urgency of the need for the reform of custom suggested in this paper.

treatment, free education, free feeding of school-children, free milk-depôts, the building of dwellings for the working classes out of public funds, and lastly the abolition of the excessive infant mortality among the lowest classes. This last change, which, as the Huddersfield experiment shews, is easy of accomplishment, is likely to be completely effected in the next few years, and we shall then have abolished the one factor which in any important degree at present tends to redress the balance between the rates of reproduction of the superior and the inferior classes.

The total effects of these influences are capable of being exhibited statistically. Professor Pearson writes: "The birth-rate of the abler and more intellectual classes in this country is falling, relatively to that of the poorer stocks. . . . Statistics are forthcoming, and will be shortly published, to shew that the families of the intellectual classes are smaller now, very sensibly smaller, than they were in the same classes fifty years ago; that the same statement is true of the abler and more capable working and artisan classes; but that as you go down in the social grade the reduction in size of families is less marked." *

At this point it seems desirable to emphasise the fact that the effects of different rates of reproduction of different classes must be cumulative in a surprising degree, if the difference is maintained through several generations. Professor Pearson has dwelt upon this point in his essays upon "The Chances of Death." He points out that if in any community one group of people having a fertility above the average breeds in from generation to generation, *i.e.*, if its members intermarry only or chiefly with members of the same group, then this group will tend rapidly to replace the other groups of the population; so that, after a surprisingly brief period of time, almost the whole population will be descended from the most fertile group. And he shews that changes of this sort may well be going on in this country, because fifty per

* Letter to the *Times* of August 25, 1905, reprinted in volume on "National Life from the Standpoint of Science."

cent. of the people of each generation are produced by about one-fifth only of the adults of the preceding generation. If then the classes of highest civic worth reproduced themselves equally or more rapidly than the mediocre classes, there would soon be established a breed capable of producing in each generation a very large number of persons of eminent abilities, because not only would these higher classes be continually recruited by the most able offspring of the mediocre classes, but the least able and worthy of the offspring of the highest classes would constantly fall back to become members of the mediocre classes. On the other hand, when—as is almost certainly the case at the present time in this country—the classes of highest worth are persistently less fertile than the mediocre classes, then they must be recruited on a far greater scale by persons drawn from those mediocre classes, on such a scale that the average worth of the highest classes may be dragged down to a lower level. There is then always the probability that in the course of a few generations any strains of exceptional ability, such as have undoubtedly appeared from time to time, will, through intermarriage with much inferior strains regress markedly towards the mediocre type and become in fact swamped or extinguished, ceasing to produce any notable proportion of eminent men, and serving merely to raise in an infinitesimal degree the general average of ability throughout the nation.

I have now indicated the principal lines of reasoning which justify the statement with which I set out; namely, that, at the present time in this country, it is of far greater national importance to promote, if possible, a higher rate of reproduction of certain superior classes than to provide for the elimination of the unfit. The considerations advanced justify us in believing that, to secure by the latter method benefits to the national breed at all comparable to the benefits which may be confidently expected from a successful effort of the former kind, we should have to immolate or isolate vast numbers of the least desirable specimens—numbers so large that the population of the country would be seriously diminished—so that from the point of view of the national

power and prosperity in the present, the cure might well prove worse than the disease. But, unfortunately, conventional religious teaching and the classical education of our public schools too often conspire to deprive the Englishman of any effective belief in natural causation; so that, except in the simplest cases of physical causation, he is not accustomed to seek, or to believe in the existence of, natural causes. Especially common is this attitude towards all large processes in which hidden causes work through long periods of time; and it is no exaggeration to say that for many, perhaps most, men historical events merely happen, and history is, and should be, the mere chronicle of such happenings. These men make use of foggy phrases; such as, "the opportunity always brings its great man," they believe that the supply of able men in our country is inexhaustible,* and they would regard any action of the State directed towards bettering the mode of reproduction of the population as necessarily futile, because they are incapable of grasping the fact that the condition, the character and the institutions of a people result from the slow workings of great natural causes. Most minds of this class are perhaps quite beyond the reach of argument in such matters; nevertheless, it may be worth while to draw attention once more to certain cases in which the operation of natural causes has wrought unmistakeable effects upon the constitution of great populations.† The history of Spain affords us the most striking of such instances in modern times. A population compounded from the finest stocks that the world has known, occupying a country that forms as it were the centre of gravity of the western world, and enjoying

* A good example of the neglect to recognise and to take into account the strictly limited number of persons of high abilities produced by each generation of the population of this or any other country, is afforded by the current discussions of the causes of the backward state of education in this country. No one seems to have connected it with the fact that throughout the period of rapid educational progress in other countries we have sent out every year to India and to other parts of the Empire, a large number of the ablest of the young men turned out by our universities, most of whom in the absence of the opportunities offered by the Indian and Colonial appointments would have joined the ranks of the schoolmasters.

† In this connection, I would draw the attention of members of this Society to the very interesting work of M. De Lapouge, "Les Selections Sociales."

a climate under which humanity might well attain its highest expression, raised Spain in the 16th century to a supreme position of power and magnificence. At the present time she is a third-rate power, contributing little to the advancement of civilisation and depending very largely for her industrial achievements upon the initiative and energy of foreigners.

This great national decline, which is not merely relative to other nations but an absolute decline, is due to no untoward change of the climatic conditions, to no devastation of the country by plague or famine or war. Nor is it due to any marked falling off of the average Spaniard in those manly qualities which enabled his race to win the mastery of the world. All observers seem to be agreed that the great mass of the Spaniards is sound and healthy and retains its admirable qualities, being virile, proud and of a fair level of general capacity. The great decline of Spain is not due to any great falling off in the quality of the average Spaniard, nor is it due in the main, as Buckle thought, to the spirit of superstition and submission to authority fostered by the Roman Catholic priesthood; it is due rather to an intellectual stagnation resulting from the insufficiency of the supply of men of the highest civic worth, of men of eminent and illustrious abilities. As to the causes of this insufficiency there can be no doubt. They have been pointed out by Mr. Galton, but still more completely perhaps by the distinguished French psychologist, M. A. Fouillée.* After pointing out that the population of Spain fell from about forty millions in the Roman period to about six millions at the end of the seventeenth century, he shews that this depletion chiefly involved the most able and intellectual classes and all individuals capable of original and independent thought and action. On the one hand, the Church attracted to her service, and so rendered childless, a large number of the ablest Spaniards. On the other hand, the Church again, through the Inquisition, drove out, imprisoned and destroyed immense numbers, amongst whom must have been very many of the

* "Esquisse psychologique des peuples Europeens."—Alcan, Paris.

most original and vigorous intellects of the nation. But this was not all. Spain's immense colonial empire, and especially her American conquests, so rich in gold and romantic attractions, vied with the Church in bringing about her fall; for almost every man of bold and enterprising spirit was drawn into colonial adventures in which thousands found an early death, while others remained to mix their blood with that of negroes and of the Indians of Mexico and of Central and South America. Spain became in fact, as the agricultural districts of England to-day are fast becoming, peopled with women and children and old men, and the laggards and dullards only. When we remember that these conditions persisted during several generations, we realise that only a miracle could have prevented the decline of Spain.

In France we have a notable instance of the depletion of one particular kind of ability, namely political ability. Probably no one will deny that France, while maintaining her high place in literature, science and art, has suffered severely during the nineteenth century from the lack of first-class political ability; that until the appearance of M. Waldeck Rousseau, she had sought for many years in vain for a great political leader. This deficiency is indubitably the natural and inevitable result of the wholesale destruction of political ability during the period of the great Revolution. Of all the men whose taste and public spirit led them to take a part in public affairs, and whose abilities sufficed to secure them any, even a moderate degree of, prominence, a very large proportion came to an untimely end; and though many of them may have fallen only when they had attained middle age and had already become the fathers of families, yet in such cases the children must frequently have suffered in divers ways; and very many must have fallen back from a relatively high social level, so that their strain was swamped by intermixture with the undistinguished crowd.

But it is needless to multiply instances. The facts are sufficiently well established to convince all intelligent

men of this nation's urgent need of such changes of custom, law or institution as will tend to promote the reproduction of the superior elements of the population, and in fact of all classes which may reasonably be regarded as above the average of civic worth.

It seems worth while at this point to consider the limits within which such changes must be confined. In the first place, I submit that they must not be such as to undermine or destroy the institution of the family; because, as I in common with many others believe, every great and stable civilisation has been based upon, and can only be based upon, a sound family-life. Hence the methods of the stud-farm, though advocated by Plato or by Mr. Bernard Shaw, or by any other equally distinguished writer, must be ruled out. This, however, leaves open the question of the form of the family; and much can be said in favour of a restricted polygamy (not the harem). For I do not think that any proposed change is bound to be consistent with the existing state of law and sentiment. Law and sentiment can easily be changed if sufficiently good reasons can be shewn, and it is from such changes that we have most to hope. Something may be hoped for from a wider diffusion of a knowledge of the conditions, especially among women. For it may be supposed that, when the conditions are made clear to all, the really superior women will cease to regard as their principal duty either the attendance at, or the engineering of, social functions, philanthropic or otherwise; that they will once more find their highest duty and pleasure in producing, rearing and educating the largest number of children that their health and their means will allow; that they will realise that this is a career and a profession, difficult, interesting and honourable in the highest degree, compared with which the careers and professions followed by the great majority of men, even the most successful men, are dull, stale and unprofitable both for themselves and for society.

But an important and, as I believe, by far the most important cause of the relative infertility of the better classes, and especially of those among them whom I have called the

emerged tenth, is the consideration of income and expenditure. For the current market-price of good highly trained abilities, *i.e.*, of the services of educated men of abilities of our classes T, U, and V, lies between £500 and £1000 a year, say about £700 a year. This is just such an income as tempts a man of highly educated tastes to remain a bachelor, to postpone marriage, or to restrict severely the number of his children when married.

If this is true, then we may hope something from the spread of a tendency of the best people to mark themselves off from the common herd by a resolute rejection of the wasteful and uselessly luxurious habits of life that have become so common among us in recent years; by the rejection of the "champagne-standard" in fact, and by the practice of a simple mode of life which, while not despising luxuries of the better sort, knows how to discriminate between them and mere ostentation.

But I think we may hope for still greater results from the general adoption of the change of custom that was briefly suggested at the outset of this paper. It is convenient to illustrate the influence of income and to shew how the reform I suggest may be introduced by considering the case of a single highly selected and salaried class; namely, the civil servants.

At the present time the State not only does nothing to promote a relatively rapid multiplication of the intrinsically superior elements of the population, but it actually maintains an extensive and unjust system by which it restricts the multiplication of those elements. The State has in its pay a large number of public servants, all of whom are selected from among many competitors, and of whom a considerable number, namely the first-class clerks of the home civil service, are selected from among the ablest youths of the country, by very severe tests of mental capacity and physical soundness. No one will deny that these constitute a group of men of high average capacity. They are selected by carefully conducted competitive tests from the ablest youths of our universities, chiefly Oxford and Cambridge, to which in turn most of the ablest boys of all the schools in the country find their way. In order

to secure a place in this service, a youth must have not only great mental capacities, but also moral qualities of no mean order, namely, an energy and steadfastness of purpose which enable him to apply himself steadily and effectively to the education of his powers and to the acquisition of learning throughout the years of school and college life. And the competition is so severe and the age limit for candidates is so rigidly drawn that success in the competition implies, save in cases of very exceptional ability, the possession of a sound constitution; for any youth who through ill-health is prevented from continuous and steady work at school and college inevitably finds himself unprepared for the competition when he arrives at the prescribed limit of age. The civil servants of the first-class constitute, then, a very highly selected group, of which the average civic worth is probably not less than that of the V class in the scale of ten classes described above. They constitute, in fact, a class of which the offspring may be confidently expected to contain a relatively large proportion of persons of eminent capacities. It is then of high importance to the State and for the future progress and welfare of the nation that these men shall produce a reasonably large number of children. Now these men receive on entering the service a salary of about £200 a year, and the salary increases on continued service up to a sum which varies from about £600 to £1000 a year, except in the few cases of those who, becoming heads of departments, receive as much as £1500 or £2000 a year. We shall not be far wrong if we say that on the average the salary rises from £200 to £800 a year and put the average at £700 a year. This is an income which the ordinarily successful business-man would regard as pitifully small and miserably inadequate for the bringing up of a family; nevertheless, the career offers compensating advantages, and since the salary, in conjunction with these advantages, suffices to attract as candidates for the service large numbers of the ablest young men at the universities, it must be regarded as adequate, or, at least, the State cannot well be called upon to make any increase in the amount of this average salary.

But the State pays this salary to each of its highly selected servants whether he is a bachelor, or married and has a small or large number of children. I have no hesitation in saying that this is an anachronism which constitutes a grave injustice to those civil servants who undertake the responsibility and labour of rearing families. The practice is a survival from the times when marriage and the production of a normally large family was more nearly universal than it is at present. There can be no doubt also that these civil servants represent just that class of men in which the tendency to postpone marriage and greatly to restrict the size of the family is especially strong and steadily growing. Many factors co-operate to bring about this tendency, but the comparatively small income is undoubtedly the most important and underlies most of the others.*

The average income of £700 a year is not attained by the civil servant under the present system until he has been some years at work, and, as he does not enter the service until he is about twenty-four years of age, he will, on the average, not attain it until he is over thirty, perhaps forty, years of age. Now, to a highly educated man of cultivated tastes, one who

* The ethical question, whether such artificial restriction of the size of the family is justifiable, is not germane to this paper. But a quotation from an article in a recent number of *The Outlook* will not be altogether out of place. The writer, after discussing the decline of fertility of a city-bred population, continues: "The second cause, 'They won't,' is that which is immediately characterised by the 'superior (and superficial) person' as utterly selfish. But tarry, O superior person. Is it indeed utterly selfish? Suspend your condemnation, and consider the matter anew. In times gone by, men's beliefs were simple, as the complexities of life were less. Then the faith that as God sends the babies so He will send the wherewithal to feed and clothe them prevailed. Now we realise that self-help is the surest method of obtaining external assistance. Hence there is to be seen in the middle class—that backbone of the nation in morality, common sense, and tax-paying power—an hesitancy to undertake the duties and responsibilities of parenthood. And let us note this on the part of the man. He realises that all depends on his health and continued capacity for work; that income-tax is something over a shilling in the pound; that he is paying rates which will afford the progeny of the thriftless lower classes an education as much too good as it is dangerous—an education which will render some the competitors of his own offspring in later life, and will render all discontented with their lot. He marries, but he hesitates to become a father. Is it selfishness, superior person, which makes him hesitate? Is the reluctance to have children, when the thread on which their future depends is a frail human life, utterly selfish in origin? Is the abrogation of the highest privilege of man or woman, parenthood, utter selfishness? Is it not rather a high self-denial—a far-seeing solicitous care for the unborn, which will not give life when it cannot see the wherewithal to maintain

has been brought up in the enjoyment of every kind of physical and mental luxury of the better sort—travel, sport, art, abundance of books and tasteful surroundings—an income of £700 a year seems barely sufficient to maintain in decent comfort a wife and one or two children, and to give to those children all those advantages of education which he himself has enjoyed; especially when, as is the case with the class we are considering, he is compelled to live in London, and therefore must afford his family long and expensive holidays in the country, or be content, like so many others, to see his children growing up physically degenerate. For there is deeply implanted in the breast of every Englishman of the better sort the healthy and admirable feeling that he is bound to afford his children opportunities of education at least equal to those which he himself has enjoyed. If then such a man marries, he marries late, and he almost inevitably restricts the size of his family to one, two, or, at most, three children, or perhaps abstains from parenthood altogether. And the temptation to remain a bachelor may be strong, for with £700 a year a bachelor can procure for himself all the luxuries that any intelligent person need desire, whereas the support of even a very small family demands strict economy and the sacrifice of many of the lesser enjoyments of life. No bachelor, in fact, needs more than £500 a year for his personal comfort and luxury, and with that income he may be regarded as at least equally well-to-do with a similar man who draws a salary of £1000 a year and has to support a wife and five children.

That the man who in these circumstances marries and

successfully the struggle for existence? Far from reproach of self-interest for the pursuance of such a policy, should it not rather be approved as one which esteems the duty to others as of first importance? A man who has the courage to carry out such a course of action will be a good citizen. His lawful debts will be promptly liquidated; his support will be accorded to hospitals and charities to the extent that his income will permit; in his old age he will certainly not be a burden to others, nor will his wife be left penniless at his death. The care and foresight which he has exhibited in the one thing will not desert him in providing for his and her declining years. Lastly, by the cleanness of his life and the soundness of his common-sense, he will do much as a unit for the morality and solidity of his nation. Yet by the curious system of the most complex of civilisations, this eminently healthy, wholly sane, and undoubtedly valuable type is being doomed to extinction. The very qualities which are so admirable compel his denial of the privilege of paternity."

brings up a family of several children is performing a service to the State is as indisputable as the fact that the bachelor shirks this primary duty of the citizen. It is clear, then, that in the case of this class of civil servants the present system of remuneration not only constitutes a grave injustice to many of them, but leads directly to a great restriction of the numbers of the offspring of these servants, and therefore restricts artificially the production of those individuals of eminent abilities whose value to the State is incalculably great. Justice and expediency alike call urgently for a reform of the system. I do not think that any objection of appreciable weight can be made to such reform, and it should therefore be welcomed, if only as an act of justice, even by those who may believe that no great advantages will accrue from it.*

The reformed system of remuneration of these civil servants would consist in the adjustment of their salaries according to the number of their children, and some such rough scheme as the following may be suggested. Let so much be deducted from the present salaries of unmarried men that the post to which £800 a year is now assigned would receive only £500, and let other salaries be proportionately reduced in the case of bachelors. On marriage let the servant, no matter what salary he may be drawing, receive an additional £100 a year, and on the birth of each child let him begin to receive an additional £75 a year and continue to receive it so long as that child is living and under the age of twenty-four years. Then, instead of paying £800 a year to the bachelor, to the man with one or two children, and to the man with five, six, or more children alike, we should have the following scale of salaries :—

To the bachelor	£500
To the married man with no children				600
„	„	1 child		675
„	„	2 children		750

* A similar reform of the system of remuneration of the selected classes of State servants might produce very beneficial results in France, where so large proportion of the educated classes pass into the service of the State and where, as M. De Lapouge points out, the civil service constitutes a most disastrous system of negative selection.

To the married man with	3 children	£825
„	4 „	900
„	5 „	975
„	6 „	1050

It is of course impossible to foretell with any pretence to accuracy whether or no this scale would imply a greater total expenditure on salaries by the State, but probably the total expenditure would be approximately the same as at present; and in any case, after some experience of the working of the system, it would be possible to adjust the scale so that this should be the case. Therefore no objection to the scheme can be taken on the ground of even the most shortsighted economy. But an enlightened State would be willing to spend a greater amount than the market price of the ability it requires in order to secure results so important for its future welfare. It might be willing to make an addition to the salary of as much as £150 a year for each living child. For the higher the scale of remuneration on this plan, the keener would be the competition to enter the service, and the higher would be the average ability of the servants, and the greater would be the tendency for them to rear reasonably large families. Both factors would tend to the production of larger numbers of those individuals of highest civic worth whose value to the nation is incalculably great.

If the first-class clerks of the home civil service were the only class of persons to which this scheme is applicable, its adoption might be regarded as a matter of relatively small importance. But I have dwelt upon their case merely because they exemplify the principles concerned in the clearest possible manner. There are numerous other posts in the pay of the home Administration that are filled by highly selected men—inspectors of education, of factories and so forth—to all of which the scheme is applicable. Again, the Indian and Colonial civil servants are a class selected by almost equally severe tests, and it may be hoped that the present agitation for reform in the army may in the near future bring it about that the same will be true for the officers of both the navy and the army. The State will then have in its pay many thousands

of public servants chosen from the very flower of the youth of the whole country on the ground of mental ability and physical and moral soundness. The application of the reformed method of remuneration will then assume an importance of the first magnitude, an importance that cannot but increase; for, however much we may regret it, there exists an unmistakable and apparently inevitable tendency for the State to assume wider functions, and therefore to employ larger numbers of servants of the highest ability procurable.

The inferior posts of the civil service are also filled by persons chosen by a process of extremely keen competition, and there is good reason to apply the scheme to their remuneration also, although in their case the matter is of less importance.

But we may go further. The adoption by the State of some such scheme as that suggested might have far-reaching consequences in inducing other institutions to adopt a similarly just and nationally beneficial system of remuneration. The example of the State might well be followed by the universities. At the present time the occupants of the university chairs receive stipends ranging from about £200 to £1000 a year, except in a very few cases of larger salaries, and the average stipend is probably about £600 a year. These professors are selected for their exceptional abilities by a process of competition even more severe and more wide-reaching than that by which the first-class civil servants are chosen, and they form a group of which the average ability is probably distinctly higher, including as it always does a number of men of the very highest intellectual distinction. Our universities are growing rapidly in both size and number, and the number of professors, already very considerable, is rapidly augmenting. It is therefore a matter of extreme importance for the universities themselves, and for learning and research, that the occupant of a chair should be remunerated in such a way as will enable him to enjoy a normally comfortable domestic life, else the best intellects will not be drawn into the profession in sufficient numbers; and from the point of view of the future generations it is still more important that for

such men the bringing up of reasonably large families should not entail hardships, the prospect of which must tend to restrict very largely the number of their offspring.

There is good reason, too, for the application of the proposed system to the remuneration of the selected servants of our organs of local government, the scope and importance of which are continually growing. And if the example were set by all these public institutions, it may reasonably be hoped that the justice and the expediency of the system would be universally recognised, and that it would be adopted by all persons and institutions—especially such semi-public bodies as the great railway and steamship companies—that employ servants selected from the great average mass on account of their superior abilities and moral character.*

If this happy result should ensue, we might confidently expect great benefits to the national breed and to the national power and capacity for progress—benefits compared with which any results that could be achieved by the elimination of the unfit by the most ruthless and autocratic of governments would be insignificantly small.

On the other hand, it is but too certain that, if some such system is not extensively adopted, there will be manifested in an ever-increasing degree the tendency, already deplorably real, for the most desirable elements of the population, moved by prudential considerations, to restrict the number of their offspring. This tendency has not yet been at work for many generations; it is the result of the increased strenuousness and the increased severity of competition of modern times. But there can be no doubt that it will grow stronger if not counteracted in some way, and that in the course of a few more generations it must, even

* In the recently republished volume of essays and addresses, Lord Goschen shows that the number of moderate incomes—incomes in the neighbourhood of £500 a year—shows a constant tendency to increase. This he attributes largely to the increasing number of salaried positions held by men of good education. It is perhaps worth while to draw attention to the fact that one public body has long recognised in practice the justice of the system of remuneration of selected servants here advocated. I refer to the Wesleyan Church, whose ministers receive, I believe, larger remuneration in proportion to the number of their children. It is noteworthy, too, that the recently proposed French income-tax recognises the justice of the claim that he who rears a family is performing a service to the State.

if it should grow no stronger than it is at present, produce a most serious deterioration of the national breed. See what must happen. The upper strata being relatively infertile, must be continually recruited from below; and this process, continually draining the great mediocre mass of its best elements, must result in a lowering of the average civic worth of that mass, so that in course of time the best that it can provide for the recruiting of the upper strata will be of less and less worth from generation to generation, and the more perfect our social ladder the more rapidly must this process of exhaustion go on. Our present social system is, then, one which tends in an ever-increasing degree to eliminate the most fit and the most desirable elements of the population, to select them by an elaborate organisation from all the strata of society, to sterilise them and to replace them in the succeeding generations by inferior elements. No people, whatever its vigour, can fail to deteriorate under such a system, and in the great world-struggle it must inevitably succumb and fall back to an inferior position among the nations. No improvements of institutions, of education, of environment can compensate for this. To those who, like the present writer, believe that the English-speaking peoples have evolved through long ages of strife and toil a system of civilisation higher than any other that the world has yet seen, one full of promise for the future welfare and progress of mankind, the change of custom here suggested will not seem to be a matter for academic discussion merely, but will appear rather as the most urgently needed social reform that lies within our power to effect.

Increase of knowledge is showing us that we are responsible for the welfare of the generations to come in a fuller sense than could be realised by our fathers. We cannot shrink from the burden laid upon us and retain our self-respect.

DISCUSSION

DR. C. W. SALEEBY SAID :

In the first place, I would comment upon Mr. McDougall's remark that all who are interested in the progress of society must deplore the biologist's conclusion that acquired characters are not transmissible. I understand how, as a psychologist, Mr. McDougall is inclined to deplore this conclusion, but I question whether, as a physician, he can concur with himself. From the physician's point of view, as Dr. Archdall Reid has abundantly shown, it is an immeasurably beneficent thing that acquired characters—all the results of injury and disease and bad environment—are not transmissible.

The only other point I would make is that the present contrast between the fertility of, say, the uppermost and lowermost classes of the community seems to me to be a temporary one. It must be recognised that when what we may call neo-Malthusian knowledge is more generally diffused, the rate at which the lower classes multiply will very much more nearly approximate to that which we somewhat uncritically deplore in the case of the upper classes. I fancy that life is found to be sufficiently strenuous amongst the poor as well as amongst the rich. When they know how to restrict their families they will do so, and the disproportion which Mr. McDougall and many other observers now deplore will disappear. Is not this a consummation to be hastened?

MR. BENJAMIN KIDD SAID :

Mr. McDougall has, I think, put his finger upon a question which nearly every civilised nation will find to be a most practical and pressing one in the immediate future. The question of the restriction of population is one which has been long foreseen by students of society in nearly all foreign countries. It arises out of many causes—largely, I think, amongst other causes that have been mentioned, from the fact that our industrial civilisation and the kind of struggle that goes on

in it puts a very high premium, as Mr. McDougall pointed out, on the restriction of families. Nevertheless, as I listened to the unfolding of the paper I could not help thinking that it was a pity to put the case quite on the grounds Mr. McDougall put it upon. To my own mind the case is absolutely conclusive, that without a large population a nation cannot hold its place in the world amongst other nations at the present day. The difference between what I might call the old social theories and the new social theories might largely be summed up in a phrase: the old social theory seemed to put the success of the nations on the basis of wealth; the new social theory puts the success of a nation in holding its place in the world on, other things being equal, the basis of numbers. The old rested on wealth, and the new on numbers. That we should breed from what is called the intellectual classes of society is a very taking proposal at first sight, but the more one knows of history the more convinced does one become that underlying the idea there might be a very dangerous fallacy. In fact, as Mr. McDougall unfolded his paper, I could not help thinking that one point after another in history which he raised told also another way.

It has to be proved that we want a larger number of an intellectual class than we can get even under present circumstances. Personally, I think that, for instance, the case of the very highly selected civil service clerk of the superior grade, or of any other profession of a superior grade, selected under examination, who is to be rewarded by additional salary graded according to the number of his children, might lead to the opposite result we wish to produce. Mr. Galton gave a lecture on this subject; but he seemed to me to miss the point of the whole matter, namely, that while we have to consider what society wants, and not what the individual wants, Mr. Galton gave no consideration to what social efficiency really is. There is always a great tendency in people's minds to confuse social efficiency with individual efficiency. Yet the individual may be very efficient as an individual, while he may be an utter failure from the social point of view. *Per contra*, individuals of the very highest social efficiency, the men whose ideas in the past have often carried the race from one social epoch into another, are just those who would often have entirely failed to pass the kind of standards Mr. Galton mentioned. Is it not possible that society is even at the present moment doing the very best for itself by weeding out those selfish bachelors who do not wish to marry, or who are not altruistic enough to bring up a family without those luxuries which the State is asked to provide? We might breed a more intellectual class, but we might lose a still more important social breed of people, which are got under the present system with which we are finding fault here. All this has to be considered from a wider outlook.

The case of France and Spain has been mentioned with regard to lack of men of genius. I have read much about Spain from that point of view, but personally, I have not been able to agree with it. I think a strong case might be made out on another side. It was not perhaps the sterilisation of certain classes that produced the existing lack, but rather the locking up of the Spanish mind which grew up under a rigid social system. I think it was the social effect rather than the individual effect. You say perhaps, "Well, how can that be? See how much in front of Spain we are! See how many greater men we have!" All this has to be proved. Only the other day we had a correspondence going on in *The Times* as to the dearth of ability in England. The point of my conclusions is that to understand what social efficiency is we have to understand the problems of human history. We cannot approach the study of these large questions armed only with a foot rule and a few biological generalisations.

MR. DARBISHIRE SAID :

I am a biologist pure and simple, and though we have heard this evening that the foundations of sociological science are largely supplied by biologists I have not studied biology with the view of supplying these foundations.

When we are asked the question how much the biologist can assist the sociologist in elucidating his problems, I think we must confess that we know very little of heredity. Mendel's work has given us a clue which may lead far; but at present we can only deal with the simplest characters, and we know absolutely nothing about the inheritance of the complex mental characteristics which the human species presents. Mendelian investigations may give us in the course of time that accurate knowledge of the causation of phenomena which will enable us to control them—and we do at present possess that control with regard to a few simple characters in animals and plants—but I think the most sanguine Mendelian will not disagree with me when I say that Mendelism is at present absolutely of no use to sociology.

On the other hand, it is maintained that the biometric study of heredity is at present of active use, and I certainly think this is so; but it should always be borne in mind that biometry is of use by taking a short cut, by contenting itself with establishing the fact, as we have heard, that the mental characteristics of men are inherited *on the average* in the same degree as their physical characteristics, nor should it be forgotten that biometry does not attempt to determine how these

characteristics are inherited. And perhaps it may be rightly urged that we are not concerned here with the "how." It may be that what the biometricians can tell us is all we shall ever know about the inheritance of these complex things. But I am not so despondent as that; and I think the time may come, although it may be very distant, when that other branch of investigation which is now dealing with the simplest characteristics will endow the breeder of men with the control which it has already put into the hands of the breeder of cattle and vegetables.

I strongly agree with the object of the paper, and I think that it is high time that some steps were taken to sweep away a state of affairs in which on the average a man's opportunity for reproduction varies inversely with his capacity for civilisation. But I think one cannot be blind to the fact that serious difficulties lie in the way. I am not sure that it will be very easy to discover what classes should be granted this increased opportunity for multiplication. We are not at all agreed as to what class contains the greatest percentage of persons of civic worth. For example, to consider three classes in their relation to one another: suppose a *plebiscite* were taken of the officers of His Majesty's Army, more votes would be recorded in favour of the extension of the right to reproduce to the class of clergymen than to that of the professional biologist; and if a vote were taken among either of these two classes, this right would be absolutely denied to the other. To the former, the extinction of rationalism is essential to the welfare of the human race; to the latter, the indefinite multiplication of the man "whose God is in the sky" is fatal to it.

Again, a difficulty seems to crop up in connection with the operation of the scheme. The object is that parents of civic worth should produce more children than they do at present; and, to further this object, the operation of the scheme would seem to take the form of the augmentation of the salary of the father with the birth of each successive child. Now, in so far as current usage and sentiment prevent a man from begetting children before he can support a wife, and as it is this step (that is, marriage) which the scanty means of many people of civic worth prevents—just as much as they prevent the production of children after it has taken place—on second thoughts it would appear that the augmentation of salary should take place at marriage. But in either case difficulties seem to arise. Suppose the increase takes place at marriage, husband and wife—both being dishonest, but fertile—might swindle the Government by pretending to be sterile. On the other hand, should the increase not take place until the birth of the first child, both of the couple might be honest, but one or both might be sterile; yet that the virtue of such a couple should be unrewarded would be a hard thing indeed. I think there is a special reason for which, apart from the main reason, Mr. McDougall's views should be brought forcibly before

the public eye; and that is, that it is an example of the kind of question on which every man and woman should form an opinion. The free discussion of questions of this kind is universally discouraged, and things are even worse than I thought they were. I did not know until the other day that the fearless discussion of the question of population and its restrictions was not considered to fall within the sphere of the serious student; but a thing happened to me which proved that this is so. Wishing to consult Malthus' work on population, I went to the Science Library in the Victoria and Albert Museum, which is the library on which we at the Royal College of Science mainly depend, and not finding Malthus among the M's in the catalogue, I asked the principal attendant if that were the only catalogue; and on being told that it was, I asked in all innocence, "Have you Malthus' Book on Population?" only to receive the answer, "Oh, no; that is not at all in our line." And though he said this with the utmost courtesy, I left the room feeling that I had been rebuked for morbid curiosity.

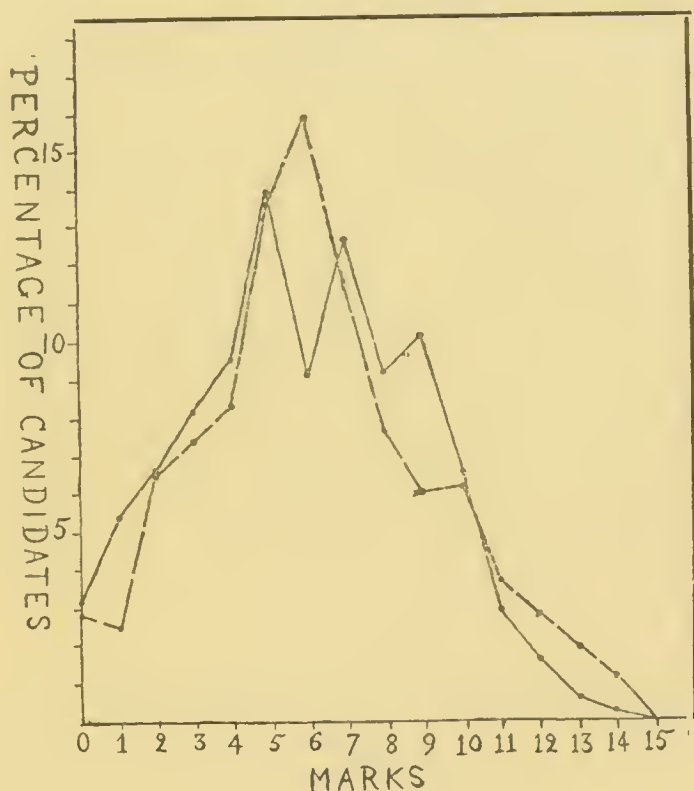
In conclusion, I would like to say that I have referred to the difficulties which seem to stand between Mr. McDougall's scheme and its realisation because it is whole-hearted—on the same principle that the best patriots are those whose eyes are as open to the faults of the nation in which they happen to have been born as they are to those of others, and that the worst enemies of civilisation are those whose frame of mind is expressed in the words "right or wrong, my country."

DR. L. N. G. FILON SAID :

Before I say anything about the paper, I should like to refer to a point mentioned by the last speaker and which appealed to me strongly. It does seem scandalous that in a library which is intended to be used by the students of the Royal College of Science, an institution where Huxley taught, the book to which Darwin refers in his Autobiography as having first started him on his researches on the origin of species should appear to be excluded. Coming now to the paper before us, I find myself very substantially in agreement with Mr. McDougall's proposal, but my agreement is not based on the reasons which he has put forward in its favour. I agree with his proposal, not because it is eugenic in the sense in which apparently the term is understood—that of favouring the parentage of one class as against the parentage of a different class—but because it seems to me to favour within the limits of the same class the parent as against the bachelor. Mr. McDougall takes one particular class, and urges that in this class the parent should be favoured against the bachelor. Of course, that is bound to

increase eventually the output of distinguished men without restricting the possible output of other classes of the community, and to that there seems to me no possible objection. But I do not quite see how his proposal is eugenic in the sense in which Mr. Galton, for example, would understand it; that is, I do not see that it does favour one class at the expense of another; and I must say that, if it did, I should have to speak against it, because it does not seem to me that the case has been made out for attempting any such thing. Nobody so far seems to have questioned the basis on which the argument of Mr. McDougall in favour of eugenics is founded. This basis consists chiefly, if I mistake not, of the statements in Mr. Galton's Huxley lecture. Now those statements do not represent actual observations. What Mr. Galton says is this: if you assume certain contributions of population according to a certain mathematical law, and if you suppose that all classes are equally fertile, and that their offspring follows the same law, then such and such results will follow. To the question whether that law is actually followed, or any of the postulated conditions satisfied, no answer from experience is given. There are no observed facts at all at the bottom of Mr. Galton's Huxley lecture. There has been a recent attempt, I think by Professor Karl Pearson, to supply that deficiency by means of an investigation on mental characters of school children. The method used to prove, for example, the collateral heredity between brothers or between sisters is I believe this: various schoolmasters and schoolmistresses are consulted about pairs of brothers or pairs of sisters in their school and they are asked to fill up, according to what seems to me a very vague scale, a statement of their opinion of the temper or ability or popularity of these various pairs. Now, to begin with, I think that most elementary schoolmasters or schoolmistresses who are consulted start with a strong bias in favour of the notion that brothers or sisters must be alike in some way. Moreover, I do not think that it is at all a reliable method of classifying mental characteristics. It seems to me that all you get is the personal impression of an individual. For example, with regard to popularity, I can quite well imagine that a certain scholar might be extremely popular with his schoolfellows and extremely unpopular with his teachers, and conversely. Therefore, I do not think the opinion of the teacher is at all a safe guide for measurement of mental characters in the child. It so happens that I have had in my hands data as to the measurement of what is possibly one of the most measurable of mental characteristics, that is to say, mathematical ability, as tested by a paper on Elementary Arithmetic. The results are shown in this diagram. Here are two groups of candidates taking the same paper. In one group there are 351 candidates and in the other 316. The groups were taken from a list arranged in alphabetical order,

and they represent, I should say, almost perfectly random sampling. The paper contained arithmetical questions, and there was practically only one way of answering them. The examiners had the strictest instructions as to the manner in which they were to mark. Every precaution which forethought could devise was taken in order to ensure that there should be no variation in the marking, and as a matter of fact, it was found that when the chief examiner revised the assistants' marks there was hardly ever any need to alter the marking by more than half a mark—that is to say, the margin of error is very small indeed, and it would seem that under those conditions the curves of the two examiners ought to be exactly alike. But when the curves are plotted, it is found they are not. Thus, at a certain mark, there is a sharp dip in one; whereas the other curve has a very high peak at that point, and there are other characteristic differences. When you come to work out the means and also the variabilities, it is found that one examiner has a higher mean, and that his candidates appear to be less variable. Moreover, a definite asymmetry exists in both curves. (This alone, by the way, contradicts Mr. Galton's hypothesis). This asymmetry is much more apparent with one examiner than with the other.



Now these two examiners are men who have examined students of this type for 20 years. I must say on first seeing these results I was very much surprised; I should never have expected any difference of this kind. If you get this sort of difference in judging of the answers to questions on arithmetic, what sort of divergence are you going to get in dealing with civic worth? One speaker to-night has told us we are not at all agreed as to what civic worth is; in fact, you might very well define civic worth to be proportional to the number of children. You might say that the most fertile people are the people of highest civic worth, and then the whole argument would *ipso facto* fall to the ground. I have mentioned this to show that we have at present no positive basis for measurement of mental qualities, and accordingly we must remain to a great extent in the dark as to their distribution among the population. That being so, I

am going to put before you a possibility. It is quite likely that fertility in any class may imply greater variability in the offspring. It seems very possible that people of the lower classes who are more fertile are also more variable in their offspring. I do not say that they are; the point has not been settled, but see what might happen. Imagine you have three classes above the mean and three below. We will call those above the mean *A*, *B*, *C*, and those below *a*, *b*, *c*. Imagine 100 children born in class *A*, and 100 born in class *a*, and suppose the children of the class *A* are less variable than those born in class *a*. These children will not all remain in the same class, they will spread themselves out among the various classes, but those born in class *A* will not spread out very much. We shall suppose that this 100 are distributed as follows (I am putting fancy numbers to make clear the argument): 70 in *A*, 15 in *B*, and 15 in *a*. Now imagine that your 100 children of *a* are very variable and that they are spread very widely throughout the population. We will say 28 in *a*, 20 in *A*, and 20 in *b*, 12 in *c*, 12 in *B*, 4 in *C*, and 4 below *c*. As to those in the very lowest classes, I suppose society and circumstances will generally take means to eliminate them. But my point is, that these 100 children of *a* may actually give a greater contribution of distinguished men to the nation than the 100 children of your non-variable upper middle-class; and accordingly if you favour the *A* parentage at the expense of the *a*, you may be actually decreasing your output of distinguished men.

THE CHAIRMAN (in closing the discussion) SAID :

It was asked, very pertinently, What is civic worth? And perhaps Mr. McDougall will give us his definition of it. Personally, I should be inclined to accept the definition of President Roosevelt, because it applies to the great mass of the people; namely, courage, honesty, and common-sense. You might say that it does not take in fertility, but I should reply that the man who has the courage to face all difficulties and bring up a large family possesses courage of the highest order. Now the great bulk of a nation is made up of the industrial classes, and the prosperity and progress of the nation depends upon their labour, health and strength; moreover, from the industrial classes have sprung great manufacturers and inventors of all descriptions, and if secondary education comes to the industrial classes I have no doubt they too will furnish the brains of the country. They have already sent to this Parliament some very able men, and in the next Parliament there may

be a great many more. Now that the question of Old Age Pensions is coming up, it has occurred to me that, if they are to be properly applied, we should seek amongst the industrial classes for civic worth as one qualification. And who are the people of civic worth? I should say aged couples who have shown courage, honesty, and common-sense; who have lived sober lives and brought up large families. They should be taken first, because they have not had the opportunity of saving means to prevent them going to the workhouse in their old age. I must say that I do not think Mr. McDougall's suggestion with regard to civil servants is practicable. Many speakers previously have alluded to the reasons why it is not practicable. And again, I would rather suggest that in selecting candidates, a boy might be taken from a large family, because he was one of a large family, rather than to give him a premium afterwards because he produced a large family. That would not affect the purse of the nation, and it would have the same effect on fertility, because if he has grit he will get on; and if he is not satisfied with the prospects of civil service, he should not go in for it. I think I am right in stating that there was a general consensus of opinion amongst the bankers of London that they would not allow their clerks to marry until they were earning a certain salary; the reason being, I suppose, that they found it led to a certain amount of inefficiency, and perhaps occasional dishonesty. Again, if the intellectual classes are sterile it means they are selfish; and if they are selfish, then they should not exist—even if they are intellectual. I think this question must be put on a different basis altogether. The great thing to aim at is the education of the public conscience, and in that I thoroughly agree with Mr. Galton in all he has said and in all he is doing, especially towards the education of the public conscience to the pride of family and the pride of race. It is the old pride of family, I believe, which has made the Japanese the great and patriotic nation they are at the present day.

WRITTEN COMMUNICATIONS

FROM MR. ELDERTON.

Mr. McDougall suggests that, in order to do something to combat the relative sterility of the better elements of the community, it would be well to introduce the custom of remunerating the services of persons selected for superior capacities in proportion to the size of their families. If any scheme is to have any measure of success, it must, I think, be extensive, and be adopted in the large commercial, engineering, banking, etc., enterprises; but if one of the causes of the sterility be, as is suggested, the stress of modern life, it is hardly possible to imagine that the big firms and companies, who are also feeling this stress in the form of keen competition, will pay more in wages than they do at present. The scheme would probably mean, therefore, a readjustment of wages without altering the total figure paid, and this would probably involve a decrement in the wages of the unmarried. As the large families of the better paid grew up, their members would, until they married, require more help from their parents than they do at present; and this would perhaps further press them to marry at an early age, though I am not very sure that the marriages they contracted would be on the average more "eugenic" in character than marriages are at present. Unless the remuneration scale were adjusted with great nicety, the scheme might lead merely to the endowment of large families, rather than of large *and eugenic* families.

Would not the effect of remunerating services more in terms of proficiency and less in terms of seniority than is done at present be pretty much the same as Mr. McDougall's scheme? A young man shows ability, and is tried with responsible work of a better paid character, and the actual increase in his earnings is to some extent an encouragement to marry, though it would not be an encouragement to a man to have a large family, unless he continued to prove proficient in comparison with those doing similar work.

I am bound to admit that I am doubtful if any "payment scheme" is likely to prove very successful, because I cannot bring myself

to believe that it could be generally adopted, and even if it were the result might merely be to increase rash early marriages, instead of somewhat wiser later ones. But whatever might prove to be the result of any experiment such as that outlined by Mr. McDougall, I should welcome any agitation which might cause people to consider the national dangers of existing conditions, and think more of their social responsibilities and less of personal luxury.

FROM MR. FRANCIS GALTON.

The probability that any Government would consent to raise the salaries of their higher officials, because they had reared large families, seems to me too remote for profitable discussion; but I should be glad to diverge into a somewhat similar question. It is as to what might be accomplished by a substantial sum, set apart for a special venture, and entrusted to an influential society who were eager to promote eugenics. The question must be discussed on the basis of definite figures, in order to judge of its cost and of its effects, both direct and indirect. The figures to be taken will be £50 for each selected married couple, and another £50 to defray all administrative charges, which would include the maintenance of a brief life-history of every child, annual reports, and careful statistical discussion. Therefore, each £100 of the capital sum is supposed to satisfy all requirements connected with one average family: a father, mother, and five children. I will suppose the total capital sum to be spread over four years, and to amount to £20,000. That would be enough for the registration, etc., of the children of 200 families, mainly of the upper artisan class—say of 1000 children. This would be a very valuable experiment on an adequate scale, and would rank as of equal importance with other scientific ventures of somewhat similar cost. Fifty awards are roughly at the rate of one per million of the entire British population. This, at the total cost of £100 per award, would amount to one-fortieth part of a penny per head—no great extravagance for a national object, even if continued, as suggested, during four years. Preliminary details would have to be discussed and re-discussed with minute care, whose frequent publication would familiarise the public with the scheme, and render it more easily carried out when the time arrived. The selection of the couples would be by committees and sub-committees, out of a list of those proposed and seconded, with a brief list of qualifications, for the truth of which the proposer and seconder will be severally responsible. It would be conducted on the same general principles as those by which the elections of officials, of medallists, etc., are conducted,

partly by testimonial, partly by private information, and towards the last by inspection. Those who are provisionally selected would be still subject to a well defined medical examination that takes heredity into account. Vacancies caused by failure to pass would be filled up from the next on the provisional list. The inducement to candidates would be partly the £50, partly the public recognition, and largely the assurance that the children will be hereafter favourably regarded by many persons, not a few of whom might give influential help at a critical moment. The fact of being "eugenic" would often turn the scale when other merits were equally balanced, and the consciousness of the boy that he was noticed, and his sense of *noblesse oblige*, would be a stimulus to do his best. It would be long before the success of the experiment could be fully known, but probably enough would be learnt in a few years to encourage or discourage its repetition, or to suggest new ways of forwarding eugenic ends.

FROM DR. ARCHDALL REID.

With the object of Mr. McDougall's paper I have the fullest sympathy. He seeks to base sociology on biology, and so, delving to the depths, to find a sure foundation. But his premises appear to me highly debatable. He declares that "mental and moral qualities are inheritable in the same sense as physical qualities." Well, but supposing a child of refined and educated English parents were reared from birth by African cannibals. Then, in body, when grown, the child would resemble his progenitors more than his captors; but does any one believe that the same would be true of his mind? We have historical evidence that Anglo-Saxon children, reared by American Indians, have been every whit as ferocious, treacherous, and ruthless as their captors. All Anglo-Indians know the disastrous effect of too much association with native servants on the plastic minds of white children, and we all dread the influence of bad companionship on our own offspring. The English child I speak of as reared by cannibals would certainly display no hint of the language and general knowledge of his parents, no tincture of their moral, social, political, and religious ideals and aspirations. He would ruthlessly murder and enjoyingly eat the stranger. He would harry the strangers' property and annex the strangers' wives by the wool of their heads whenever practical. He would treat his own wives as beasts of burden, and thrash them as a matter of routine. His æsthetic ideals would be satisfied by plenty of grease, a little paint, and a few beads; his moral ideals by a homicidal devotion to the tribal chief. His god would be the native fetish, to whom he would

offer human sacrifices. He would go naked but unashamed. The Rev. John Creedys of Grant Allen's story exist only in fiction. The evidence, then, is overwhelming that mental and moral qualities are not inherited in the same sense as physical qualities. The common-sense of mankind has universally recognised this radical difference between man's mind and his body. We let our children train their own bodies, being satisfied that physically they will develop well enough under the influence of sufficient food, fresh air, and exercise; but to the training of their minds we devote the most anxious care. We mould them, and we know that we mould them. Nobody fears that his child will be made short or dark by association with short or dark companions, but every one dreads that his child may become silly or bad if his associates are silly or bad.

The lower animals eat, and drink, and grow, and as they grow develop certain instincts inevitably. These instincts are inborn mental characters, and as such are transmissible to offspring. Man also has his instincts which develop in the same way, which are similarly transmissible, and as regards which he is in no way superior, but often inferior to lower animals—the impulses to eat, to drink, to sleep, to rest when tired, to sport when rested, to love his mate, to cherish his offspring, the instincts of imitativeness and curiosity, and so forth. Besides their instincts, some animals have the power of profiting by experience. That is, they have a memory by means of which they make mental acquirements, and in which they store past experiences for the guidance of future conduct. In every species the extent of the conscious and unconscious memories is always proportionate to the power of utilising their contents. The two combined make up what we term intelligence. As a rule, the higher the animal the more intelligent it is. It has a wider memory and greater power of utilising remembered things. That is why a dog is so much more teachable than a rabbit, and why we can by teaching alter its character so much more. By practically universal consent it is agreed that mental acquirements, like physical acquirements, are not transmissible to offspring. Thus a puppy is not born with a knowledge of the things its parent learned. It must acquire them for itself, and it does so because it is similarly trained.

Now man is pre-eminently the educable animal. He has an enormous memory and enormous powers of utilising its contents. It is this that differentiates him from other animals and makes him human. A baby is born as ignorant, as non-moral, as unintelligent as any sucking pig. But the difference between the mental acquirements of a learned pig and a learned man demonstrates how much more educable the latter is, how much more capable of storing experiences, of being modified for good or evil by his surroundings. It is this educability

that confers on a man all his morality, all his intelligence, all his intellectuality, all his reasoning power, all his adaptability. Because he is able to grow mentally in adaptation to the environment in which he is reared, he is capable of becoming a statesman or a chimney-sweep, a savage or a civilised being, a master or a slave, a doctor or a lawyer, a thief or an honest man. The instincts of men have everywhere and in all ages been the same; for instincts are inherited in the same sense as physical characters are inherited. But man's knowledge, aspirations, ideals, and all that flows from them belong to a different and a higher category. They are acquirements, and as such are not inherited by offspring. Even when displayed by a hundred or a thousand successive generations they are acquired by each individual afresh. For this reason, because no man's experiences are quite the same as those of any other man, individual men of the same family or class differ widely amongst themselves; men of different classes differ yet more, and men of different nations even more. For example, though our instincts are much the same as those of every other race, we in England differ at the present time greatly in our acquirements from West African savages and our equally savage ancestors. No doubt there are important innate differences, but, speaking generally, these are so completely masked and overshadowed by immensely more important acquired differences that they cannot be recognised without much closer scientific investigation than has yet been attempted.

It is necessary to distinguish sharply between two things: between, on the one hand, the innate capacity to make mental acquirements, and, on the other, the acquirements themselves. Thus a man may have exceptional mathematical ability, by means of which he achieves considerable mathematical acquirements if afforded the opportunity. The ability is inborn, and tends to be inherited by offspring; the acquirements are not. Possessing the ability, the child may or may not become a great mathematician. But such a one is more likely to receive a mathematical training than the child of an ignoramus. Without the training, the ability would be nought. The same is true of every other mental peculiarity. Birth, therefore, bestows on the child the parental aptitudes; association the parental acquirements. The child's imitative instincts impel it to copy its parents. Children, therefore, resemble their parents for a double reason: first, because they tend to have much the same innate capacities; and second, because they make much the same acquirements. Of course, however, the parent is not the only influence in the child's environment. Other influences affect the child; for example, the health he enjoys, the companions he meets, and the religion he is taught. Nevertheless, the educational influence of the parent is very potent. On this account, for instance, honest, refined and cultivated people have, as a rule, children of the same type.

If confirmation be wanted of the indubitable fact that children resemble their parents, not only because they inherit the same instincts and aptitudes, but even more because they make the same acquirements, we may find it abundantly in the history of mankind. Man is a very slow-breeding animal. All students of evolution know, therefore, that innate changes of any magnitude can occur in his race only slowly—so very slowly that thousands of years are necessary to their evolution. Yet under changed educational influences many races have altered their characteristics very rapidly. Thus anciently the Greeks quite quickly became one of the most splendid races of which history holds record, producing, in proportion to their numbers, an unparalleled multitude of distinguished men. Even more suddenly they sank into degradation, and subsequently of distinguished men they have produced hardly one. The doctrine of evolution and that of averages forbid us to believe that the change was one of innate qualities. The Romans rose and fell in much the same way. The history of the Renaissance teaches a similar lesson. The history of religious changes teaches it vividly. All races which follow any given religion resemble one another closely in mind even though when of diverse race, and differ from the followers of other religions even when of the same race. Thus the mental traits of Greek Mahomedans are very like those of other Mahomedans, and differ sharply from those of their relatives, the Christian Greeks, and their ancestors, the great Pagans.

When Mr. McDougall declares that moral and mental qualities are inherited in the same sense as physical qualities, he places all mental qualities on the same plane as instincts. He fails to note how much more educable the mind of man is than his body, how much more under the influence of the environment. It is conceivable, for example, that among his audience are people whose whole mental life will be altered by his lecture. Such things have happened. But it is impossible that their bodies could be equally modified in so short a time except by injury. To him every thief is a born thief, every savage a born savage, every fool a born fool. He makes no attempt to ascertain what the average man owes to inheritance and what to training. All is attributed to inheritance. The authorities he cites have perpetrated the same error. They have demonstrated statistically that ability, probity, geniality, and the like, tend to run in families. In this conclusion they are certainly right. But when, without further investigation, they assume that all resemblances between parents and children are due to inheritance, they are certainly mistaken. Their inferences are not warranted by their data. To prove that children resemble their parents is not the same thing as to prove that the resemblances are all due to inheritance. On precisely the same grounds they might have declared that Frenchmen inherit the words of the French language, and that civilised

racess are innately inclined to wear boots. Resemblances come by association as well as by inheritance; they are acquired as well as inborn. Except as regards instincts, it is, in fact, impossible to deny the enormous influence of the environment in the creation of the mental and moral qualities of every human being who is not a congenital idiot. The environment creates most of those qualities, in the same sense that a sculptor creates a statue, or a painter a picture. The artist must have materials to work with, and to do well he must have good materials. But however good the materials, the finished product in a real sense is wholly his own creation. Idiots are idiots only because their memories, and therefore their reasoning powers, are defective; because they are incapable of growing mentally in response to the environment; because they cannot store, organise, and utilise the complex mass of acquired details which, with the exception of the instincts, form the entire mental equipment of the normal individual. Mr. McDougall would reduce us all to the status of idiots. Geniuses are geniuses only because they are able to learn, and utilise their learning, better than ordinary men. The very authorities who declare that mental and moral qualities are inherited in the same sense as physical qualities, contradict their own doctrine by choosing with the greatest care good companions and teachers for their children. They have declared that nature is stronger than nurture. But really this is a very wrong way of putting it. The real truth is, that nature has so fashioned man that he is transcendently responsive to nurture.

The issues raised by Mr. McDougall, in a lecture for which we can never be too grateful to him, are of more than merely academic interest. If he is right, if mental and moral qualities are inherited in the same sense as physical qualities, then all attempts to raise and improve mankind by teaching and example are entirely hopeless. In particular, all sociological work is hopeless. A chasm, not to be bridged in a thousand years, divides race from race and class from class. Speaking practically, savages must always remain savages, non-progressive races always non-progressive, the brutalised classes always brutal. We must rely entirely on the slow action of selective breeding, and the task of persuading an exceedingly stupid race to adopt selective breeding is an impossible one. On the other hand, if the stupidity and brutality of the majority of stupid and brutal men are merely acquirements, the outlook is very hopeful. We have only to improve the mental training of the mass of men, and at once we shall render the race intelligent and noble—more intelligent, if our training be good enough, than the ancient Greeks, more noble than the ancient Romans. To an intelligent race many things are possible which are not possible to an unintelligent one—even selective breeding, for example.

If we wish to do really useful work we must apply appropriate

remedies to the evils we desire to mend. We must recognise that an attempt to make men honest (for example) by selective breeding would be very similar to an attempt to convert the French into an English-speaking race by that method. In man, as in all higher animals, there are two separate and distinct kinds of qualities, the inborn or innate and the acquired. If sociology is to derive any teachings from biology that distinction must be the first lesson. Beyond doubt it is useless to try to improve the innate qualities of the race except by selective breeding; but it is equally vain to seek to improve acquirements otherwise than by improved training. Always, from the nature of the case, our first task must be to improve the acquirements. For though all men are not born equally capable of acquiring knowledge, intelligence, efficiency, and the like, yet in every man these qualities—some of which are necessary to the success of every enterprise—are pure acquirements which can be exalted by good, or depressed by bad training. This truth is tacitly admitted by all men—by Mr. McDougall, for example, for has he not sought with success to educate us by this lecture?

FROM MR. E. H. J. SCHUSTER.

Mr. McDougall's suggestion appears to have the merit that its title claims for it—that of practicability. But it would be interesting to have an answer to the question: What is the extent of good results that may be expected? and it appears to me that at any rate a partial answer might be obtained in the following ways:

(1) By collecting estimates of the civic worth of, or records of the achievements of, the offspring of the "highly selected class of government servants," in order to determine whether under existing conditions they are above the average for this quality.

(2) The encouragement to marry and have children, in order to be effective, would have to be given early in the career of the selected persons, before their merits could have been tested by the highest standard, namely, by that of their efficiency in the serious work of their lives. They would be selected almost entirely by examinations in school work, and on account of this it would be well to determine the correlation between success in examination of the father at the commencement of adult life and the civic worth of the children. Granted that this correlation is a fairly high one, Mr. McDougall's prescription could not fail to be of service; for not only would it increase the size of the families of the selected class, but it would also offer additional inducements to compete for places within that class; so that the successful candidates, being chosen from a larger number, would be even more rigidly selected than is at present the case.

FROM DR. J. L. TAYLER.

I would like to allude to a few points in Mr. McDougall's interesting paper which seem to me to require consideration. While fully agreeing with his main contention—that the better elements in the population deserve, according to the sociologist's point of view, more attention than the worse—I cannot help feeling that there are grave objections to his practical proposal for endowing certain favoured classes of the community.

For assuming that his idea were a feasible one, it is open to the criticism that the wives of the selected civil servants are not similarly selected, and, therefore, unless they also could be subjected to similar tests, the scheme must fail.

Further, Edmond Demolins has pointed out that the civil servant is generally lacking in initiative, and he believes that the relative absence of energy in France as compared with England is in great part due to the large number of government posts in the former country as compared with the latter. It would be interesting to know what answer Mr. McDougall would give to the French sociologist's contention.

Apart, however, from these two difficulties there are others which I feel to be of exceptional weight.

Firstly, Would the influence of the monetary consideration tend to cause men to choose wives for physical and reproductive reasons rather than for mental comradeship? If so, would not this favour a lower average mental capacity in the children born of such mentally inferior mothers? Would it not also favour egoistical rather than social altruistical ideals?

Secondly, I notice an absence of sympathy in reference to the woman's position (*a*) as regards her own cultural life, for very frequent child-bearing is apt to stultify mental power; (*b*) because a mother's duties, like a father's, are not simply those of breeding but also of rearing children, and a mother's mental endowment is as necessary to her children through her own personal influence as through her impersonal hereditary transmission of characters. Would not few children trained under a mentally alert and sympathetic mother be better for the State than many children brought up without this parental influence, owing to the enfeebled condition of the woman's exhausted mind?

Thirdly, If the endowment suggestion were to become universal, and assuming it to be desirable, would it not be necessary to make distinctions between the many small-family groups that would be affected? Most medical men know that small families result from many causes, some social, others anti-social, as the following:—

(*a*) Those rare instances where a man marries a woman for mind sympathy and love. Where animal craving and falsely named "social

reasons" are negligible elements, he considers her life as much as his own and has seldom more than three or four children, on account of mental self-restraint.

(b) Compulsory late marriages. Scholarships do not—as they are collective tests applied collectively to groups of students—reach the poor original worker who has a strong individuality and develops his powers by individual methods, and who therefore often fails, and when successful is seldom able to marry early in life; nor do they shorten the *dependent* period of even the fortunate students who, being thus also delayed, found a home late and have few or no children.

(c) Quite distinct to the above two groups is a third, grossly sensual in its main characteristics, the small families resulting from unnatural practices rather than social or mental causes.

(d) A large class who contract disease by immoral habits of life and become sterile from this cause.

(e) Those persons who with desire for parentage are for unknown reasons unable to become parents.

Are all groups to be alike disqualified and all causes treated similarly?

Fourthly, in conclusion, it has never been shown that payment *beyond* a living wage, which varies for each trade and profession, does draw talent in the direction of payment. A non-living wage is, of course, prohibitive; but artistical, scientific, literary and musical pursuits are all to a great extent unremunerative. Yet they are followed and success is achieved, and a large porportion of leaders in these occupations hold that, beyond *necessary* needs, added wealth attracts not the disinterested lover of his work but the money-seeker; a eugenic selection could not therefore take place. Hence it is questionable whether it would not be wiser to aim at abolishing underpaid and marriage-prohibiting posts than to increase those salaries that are already sufficiently remunerative if fashionable methods of living be discarded.

MR. McDOUGALL'S REPLY.

At this late hour I can attempt to reply only very briefly to some of the criticisms of my suggestion made this evening.

Dr. Saleeby suggested that the present disproportion between the rates of reproduction of the better and the inferior classes will not last long because the tendency to

restrict the family will spread rapidly to the lower classes. It is, I think, improbable that the balance will ever be restored in this way or that the customs of late marriage and restriction of the family will spread to the classes of less than average civic worth. And even if such a spread of the customs should take place, that would not abolish, but only render rather less urgent, the need for the introduction of the just and eugenic system of remuneration of the selected classes.

Mr. Kidd's remarks did not seem to me to attempt to deal with the arguments advanced in my paper. He pointed out that the prevalent tendency nowadays is to attach prime importance to the numerical strength of nations. It is true that this tendency prevails, but that does not prevent me from regarding it as a vulgar error. Surely the teaching of all history, and especially of the two recent wars, is that the quality of men and the intensity of their efforts immensely outweigh mere numbers in any international conflict. To the contention that the decadence of Spain was due to the destruction of its eugenic or ability-producing stocks, Mr. Kidd replies that Spain declined because its intellectual life stagnated. I myself had ascribed its decline to intellectual stagnation. The only difference between us on this point is then that Mr. Kidd says simply—the national intellect became stagnant, and seems to be of the opinion that this merely happened and was a change produced by no causes; whereas I, following M. Fouillée and Mr. Galton, point out that very powerful causes tending to produce this intellectual stagnation operated for a century or more before the decline set in, and ascribe the stagnation and the decline to those causes.

Mr. Kidd repeated in brief one of the prime fallacies of his "Social Evolution," namely—there has been no improvement of innate intellectual capacity during the historic period; therefore social evolution and the growth of civilisation have not been due to the intellect. The argument is a *non-sequitur*. I accept the premise and reject the conclusion. But even if his conclusion were sound, it would remain true that our national prosperity can only be maintained in the

international struggle on the condition that we continue to produce men of first-rate abilities and character.

Several speakers, I think Dr. Filon, Mr. Darbishire, and Dr. Slaughter, insisted on the difficulty of selecting the persons of high civic worth. A principal feature of my scheme is that selection is not to be effected by any process of inspection or examination of a few hours duration, but that we should take advantage of that system of selection which is already operative, which begins for most individuals almost from the moment of their birth and continues until they retire from active life; a system which already operates very effectively, and for the perfection of which the nation must and will inevitably strive. I do not think that any one who takes part in the work of one of our great universities will deny that there are very great differences of intellectual capacity among the students, and that our competitive system selects the abler men with very fair success. It is generally recognised also in the universities that the successful men generally combine with intellectual capacity moral and physical qualities of more than average excellence.

Dr. Filon criticised very severely Mr. Galton's table of probable distribution of civic worth. The accuracy of this table is not an essential foundation of my scheme. I have taken it merely as the best approximation to the truth that we yet have, in order to render the argument a little more concrete than it otherwise could be made. But the only necessary presupposition is that mental characters are in some degree hereditary, a fact which no intelligent person will question. There is no reason for postponing eugenic efforts until we know exactly the laws of heredity, still less until we understand the intimate nature of the processes.

One other point of Dr. Filon's I should like to answer. Referring to the hypothetical classes, he said that it might well be that a class C, about the middle of the scale of civic worth, might be relatively richer in progeny of high abilities than a class A higher in that scale, if it (the class C) were more variable. But there is a strong probability that the people who constitute the classes at the middle of the scale

are the least variable; they are there at the middle just because they and their parents have not varied widely from the mean, whereas the criminals and the outcasts at the bottom and the eminent persons at the top of the scale are in those positions because they have varied, and therefore they constitute presumably variable stocks. Dr. Filon put before us an interesting diagram, illustrating the distribution of marks assigned to two groups of students by two examiners. I venture to suggest that if Dr. Filon could give us the marks assigned to one large group of students independently by two examiners, the figures would have a much more direct and valuable bearing upon the question before us than those which he actually produced. If it were shown that the two lists of marks assigned by two competent examiners exhibited no correlation, I would admit at once the hopelessness of estimating the relative mental capacities of individuals. I am inclined to think that the correlation would be close, and this belief underlies the working of all our vast systems of examinations.

Dr. Mott pointed to the presence of some fifty working men now Members of Parliament, adducing them, I believe, in justification of the widely entertained belief that the masses contain an unlimited amount of ability which has not yet found its chance to rise. To my mind the presence of these fifty Members of Parliament drawn from the working classes has a different significance. It illustrates forcibly the high degree of effectiveness of the social ladder to which I referred in the course of the paper, and the results of that effectiveness. We are now going to turn those fifty men, the elect of the working classes, into middle-class beings; we are going to make them desirous that their sons should have secondary, and perhaps university education, and we are going to pay them £200 a year. An inquiry twenty years hence into the size of their families might be instructive.

Dr. Mott suggests that the present system is one which tends to breed courage and exterminate timidity and selfishness. I think that in saying that he overlooks the very important distinction between courage and reckless

indifference. Large families are perhaps as often due to the latter as to the former. To this objection I have quoted in a footnote a very effective answer from the pages of *The Outlook*, but have omitted to read it this evening.

Mr. Galton's written communication seems to imply that he regards the eugenic value of the reform I suggest as hardly comparable with that of his marriage-endowment scheme. I would like to point out that his proposal and mine have very different aims. While his aims at producing a certain number of exceptionally endowed individuals and is essentially artificial, mine aims primarily at restoring the balance of nature by an act of justice, at preventing that extinction of superior abilities which the artificial conditions of our civilisation are tending to effect, and which has been an important, if not the principal, factor in the decline of all great civilisations and national powers of past ages. The two aims are not in any way antagonistic, but I submit that an artificial scheme such as Mr. Galton's will not prevent national decline if the social conditions continue to determine in the future a reversed selection, as they have done in the past, and that the effort to rectify these effects of civilisation, which have proved so disastrous to the civilised nations of all ages, should take precedence of any scheme for artificially favouring the production of exceptional individuals. Mr. Galton has proposed two schemes, one for marriage-endowments for selected persons, the other for the issuing of eugenic certificates. Perhaps I may venture to suggest that a combination of the two schemes might be expected to give far better results than either or both taken separately. Let the holder of a eugenic certificate be guaranteed a certain small annual sum, say £10, for each child born of his or her marriage, and let that sum be doubled if he or she has married another certificate-holder.

Finally, my contention that the present system of remuneration is essentially unjust has not been questioned. I maintain that the proposed reform ought to be effected, if only on the ground of justice and apart from all eugenic considerations; and I submit that no serious objection to

the proposed system has been raised this evening, or can be raised. It has not been shown that it would tend to produce any ill effects, while it remains in the highest degree probable that some valuable eugenic effect would be produced, although it must be admitted that in the present state of knowledge it is impossible accurately to foretell the magnitude of those effects.



